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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/987,849 | 11/16/2001 | Jarkko Viinikanoja | 1123.40878X00 | 7575 |

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EXAMINER

YE, LIN

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| ART UNIT | PAPER NUMBER |
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2622

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,849

Applicant(s)

VIINIKANOJA ET AL.

Examiner

Lin Ye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 106-143 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 106-143 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/14/06 have been fully considered but they are not persuasive as to claims 106-143.

For claims 106, 113, 120, 125 and 130, the applicant argues that the Umezawa reference (U.S. Patent 5,491,507) does not disclose of either 1) altering the optical properties of a lens module through a means that is part of the mobile terminal housing or 2) the means being adapted to cooperate with lens module, because the rejected claims recite that the means is part of the mobile terminal, not the camera, and the mobile terminal cooperating directly with the imaging optics (See Applicant's REMARKS, page 11, line 12 through page 12, line 6).

The examiner disagrees. The Umezawa reference clearly shows in Figure 1, a mobile terminal device (equipment 1). The housing of the mobile terminal (body 2) includes camera (3), lens (24), display panel (11), control panel (14), microphone (16), etc.. (See Col. 5, lines 30-51). Therefore, The camera (3) and lens (24) are considered as a part of the housing of the mobile terminal device.

It also should be noted that the applicant's specification discloses "means for changing optical properties of the lens module" as described in paragraph [0015] on page 6, lines 4-7, "The mechanism for **changing optical properties** of the lens module may enable modifying the limited properties of the lens module, for example to shorter minimal distance or **varying field of view**"; and as described in paragraph [0125] on page 34, lines 16-18, "Also zoom

objectives or **auto-focus objectives** may be adapted to the lens module of camera unit 20 and provide **extended changing of optical properties** of the camera unit 20", etc..

The Umezawa reference discloses a video camera (camera 3 and lens 24 as part of a housing of the mobile terminal device) which is detachable from and rotatably and slidably mounted to mobile terminal device which provides for enhanced imaging including **auto-focus** and **angle of view adjusting** (e.g., the lens portion 24 of the camera 3 has auto-focusing, angle-of-view, enlargement and telescoping functions as providing means for changing optical properties of the camera system, see Col. 7, lines 40-45 and Col. 10, lines 34-36). For those reasons, The Umezawa reference clearly discloses the claimed subject matter involving altering the optical properties of a lens module through a means that is part of the mobile terminal housing or the means being adapted to cooperate with the lens module as recited in each of the independent claims 106, 113, 120, 125 and 130.

For claims 107, 114-115 and 132, the applicant argues that the Umezawa and Suda references individually. The applicant argues that Suda is not directed to cameras within a mobile terminal, and does not teach, disclose, or otherwise suggest a portion of terminal housing that detachably connected with a camera system.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The Umezawa reference discloses the camera within a mobile terminal, and a part of a housing of said mobile terminal device which is detachable from said mobile terminal device

(e.g., camera 3 and lens 24 as a part of a housing of the mobile terminal device is made detachable from the body 2 of the mobile terminal device 1, see Col. 11, lines 45-50). This is clear that the camera system becomes a conventional stand-alone camera when the camera system (camera 3 and lens 24) is detached from the mobile terminal device (1).

The Suda reference teaches in Figure 1, an interchangeable lens assembly (127) video camera system including zoom and focus lenses (102 and 105), motors (121 and 125) for driving the zoom and focus lenses and controlled by motor control circuit (118) as providing the means for changing optical properties; and the interchangeable lens assembly is detachably connected with the camera system (camera main body 128, see Col. 5, lines 49-60).

The only reason for combining the Suda reference with the Umezawa reference for providing evidence that one of ordinary skill in the art at the time to see more advantages the digital video camera system having an interchangeable lens assembly (including means changing optical properties) detachably attached to the camera main body so that the camera system can easily work with different types interchangeable lenses (See Col.3, lines 9-21). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Umezawa ('507) by providing means changing optical properties is detachably connected with the camera system as taught by Suda ('524).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 106, 108-113, 116-131 and 133-143 are rejected under 35 U.S.C. 102(b) as being anticipated by Umezawa et al. U.S. Patent 5,491,507.

Referring to claim 106, the Umezawa reference discloses in Figures 1-7 and 8A-8C, a mobile terminal device (equipment 1, video camera with telephone) having a camera system (3, see Col. 5, line 62) comprising a lens module (lens 24, see Col. 7, lines 60-65) which enables taking pictures with optical imaging properties given by the lens module; a part of a housing of said mobile terminal device which is detachable from said mobile terminal device (e.g., camera 3 and lens 24 as a part of a housing of the mobile terminal device is made detachable from the body 2 of the mobile terminal device 1, see Col. 11, lines 45-50); and means for changing optical properties of the lens module, the means being adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties, wherein the part of housing (camera 3 and lens 24) comprises the means for changing optical properties (e.g., It should be noted that the applicant's specification discloses "means for changing optical properties of the lens module" as described in paragraph [0015] on page 6, lines 4-7, "The mechanism for **changing optical properties** of the lens module may enable modifying the limited properties of the lens module, for example to shorter minimal distance or **varying field of view**"; and as described in paragraph [0125] on page 34, lines 16-18, "Also zoom objectives or **auto-focus objectives** may be adapted to the lens module of camera unit 20 and provide **extended changing of optical properties** of the camera unit 20", etc.. The Umezawa reference discloses a video

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camera which is detachable from and rotatably and slid ably mounted to mobile terminal device which provides for enhanced imaging including **auto-focus** and **angle of view adjusting**, e.g., the lens portion 24 of the camera 3 has auto-focusing, angle-of-view, enlargement and telescoping functions as providing means for changing optical properties of the camera system, see Col. 7, lines 40-45 and Col. 10, lines 34-36. For those reasons, The Umezawa reference clearly discloses the claimed subject matter involving the claimed lens module providing changeable optical imaging properties of the lens module as recited in claim 106).

Referring to claim 108, the Umezawa reference discloses wherein the part of the housing (the housing of the video camera phone system) integrates an assembly of a plurality of means for changing optical properties (such as auto-focusing, angle-of-view, enlargement and telescoping) each being adapted to cooperate with said lens module (24) of said camera system (3), wherein said assembly can be changed upon actuation (e.g., user slides the lens portion 24 and lens 24 automatically focusing the user for visual telephone communication as actuation of objectives, See Col. 10, lines 8-16).

Referring to claim 109, the Umezawa reference discloses wherein said means for changing optical properties comprises a lens (lens portion 24).

Referring to claim 110, the Umezawa reference discloses wherein the camera system is built (fixed) into said mobile terminal device as shown Figure 1.

Referring to claim 111, the Umezawa reference discloses wherein said camera system is attached to said mobile terminal device as an external module (with a connection cord, see Col. 11, lines 45-50).

Referring to claim 112, the Umezawa reference discloses wherein said mobile terminal device is a mobile phone as shown in Figures 1.

Referring to claim 113, the Umezawa reference discloses in Figures 1-7 and 8A-8C, a part of a housing of a mobile terminal device which is detachable from said mobile terminal device (e.g., camera 3 is made detachable from the body 2 of the mobile terminal device 1, see Col. 11, lines 45-50), wherein the part of the housing (camera 3) comprises means for changing optical properties of a lens module (e.g., the lens portion 24 of the camera 3 has auto-focusing, angle-of-view, enlargement and telescoping functions are considered as providing means for changing optical properties of the camera system, see Col. 7, lines 40-45 and Col. 10, lines 34-36) of a camera system (3) of said mobile terminal device (1), wherein the camera module with the lens module (24) enables taking pictures with optical properties given by the lens module and the means are adapted to cooperate with the lens module of the camera system to enable taking pictures with changed optical imaging properties (e.g., user slides the lens portion 24 and lens 24 automatically focusing the user for visual telephone communication as actuation of objectives, See Col. 10, lines 8-16).

Referring to claim 116, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 108 and 113.

Referring to claim 117, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 109 and 113.

Referring to claim 118, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 111 and 113.

Referring to claim 119, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 112 and 113.

Referring to claim 120, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 106 and 113.

Referring to claim 121, the Umezawa reference discloses wherein the part of a housing (body 2) is detachably connected with said camera system (e.g., camera 3 is made detachable from the body 2 of the mobile terminal device 1, see Col. 11, lines 45-50).

Referring to claim 122, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 109 and 120.

Referring to claim 123, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 111 and 120.

Referring to claim 124, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 112 and 120.

Referring to claim 125, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 106 and 113.

Referring to claim 126, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 109 and 125.

Referring to claim 127, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 110 and 120.

Referring to claim 128, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 111 and 120.

Referring to claim 129, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 112 and 120.

Referring to claim 130, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 106 and 113.

Referring to claim 131, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 106 and 130.

Referring to claim 133, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 108 and 130.

Referring to claim 134, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 109 and 130.

Referring to claim 135, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 110 and 130.

Referring to claim 136, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 111 and 130.

Referring to claim 137, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 112 and 130.

Referring to claim 138, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 120 and 130.

Referring to claim 139, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 121 and 130.

Referring to claim 140, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 122 and 130.

Referring to claim 141, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 123 and 130.

Referring to claim 142, the Umezawa reference discloses all subject matter as discussed with respected same comments to claims 124 and 130.

Referring to claim 143, the Umezawa reference discloses in Figures 1-7 and 8A-8C, a mobile terminal device (equipment 1, video camera with telephone) having a camera system (3 and 24, see Col. 5, line 62); a part of a housing of the mobile terminal device (e.g., camera 3 and lens 24 as a part of a housing of the mobile terminal device is made detachable from the body 2 of the mobile terminal device 1, see Col. 11, lines 45-50), wherein the part of the housing is detachable from the mobile terminal device 91) and comprises at least part of a lens module (24) adopted to cooperate with said camera system.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 107, 114, 115 and 132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umezawa et al. U.S. Patent 5,491,507 in view of Suda et al. U.S. Patent 6,373,524.

Referring to claim 107, the Umezawa reference discloses all subject matter as discussed with respect to claim 106, except that the Umezawa reference does not explicitly show the means changing optical properties is detachably connected with said camera system.

The Suda reference teaches in Figure 1, an interchangeable lens assembly (127) video camera system including zoom and focus lenses (102 and 105), motors (121 and 125) for driving the zoom and focus lenses and controlled by motor control circuit (118) as providing the means for changing optical properties; and the interchangeable lens assembly is detachably connected with the camera system (camera main body 128, see Col. 5, lines 49-60). The Suda reference is evidence that one of ordinary skill in the art at the time to see more advantages the digital video camera system having an interchangeable lens assembly (including means changing optical properties) detachably attached to the camera main body so that the camera system can easily work with different types interchangeable lenses (See Col.3, lines 9-21). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Umezawa ('507) by providing means changing optical properties is detachably connected with the camera system as taught by Suda ('524).

Referring to claim 114, the Umezawa and Suda references disclose all subject matter as discussed with respect same comments to claims 107 and 113.

Referring to claim 115, the Umezawa and Suda references disclose all subject matter as discussed with respect same comments to claims 107 and 113, and Suda reference discloses wherein said part of said housing (camera) is detachably connected to a lens module.

Referring to claim 132, the Umezawa and Suda references disclose all subject matter as discussed with respected same comments to claims 107 and 130.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (571) 272-7372. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Lin Ye', with a stylized, flowing script.

Lin Ye
Primary Examiner
Art Unit 2622

May 25, 2006